King County Regional Infiltration/Inflow Control Program
Local Agency Workshop #4 - Summary
Thursday, November 16, 2000

Background

The King County Regional Infiltration/Inflow (I/I) Control Program is a partnership between King County and 34 Local Agencies located within King and Snohomish Counties. King County's wastewater interceptors, pump stations, treatment plants and outfalls serve those tributary, but politically and administratively independent, local sewer agencies. Increased wastewater flows within the County service area have used significant portions of, and in some cases exceeded, the capacity of existing County facilities. Further, it has been determined that excessive I/I into the systems claims a significant portion of facility capacity during wet weather conditions. To protect the environment and accommodate the needs of Local Agencies, a balance between the expansion of County facilities and rehabilitation of County and Local Agency collection facilities must be achieved. In addition, a structure for financing the costs of the necessary capital improvements in a manner acceptable to all participants must be devised. A series of participatory workshops have been and will continue to be held to help shape this important, multi-year I/I Control Program.

Local Agency Workshop #4 was held Thursday, November 16, 2000 at the Bellevue Inn in Bellevue, Washington. Participants included policy and technical representatives from the cities and sewer/water districts within King County and that portion of Snohomish County that discharges wastewater to the King County system. The participants were organized into twelve regional roundtable groups with a consultant policy team member and/or Local Area Manager (LAM) at each table.

Workshop Purpose

This workshop was the last of four I/I Control Program workshops planned for the year 2000 and the fourth of 14 workshops overall. Workshop #4 was designed to present I/I Control Program policy issues related to financial concepts and alternatives for sharing I/I control costs. It was also intended to obtain ideas from those attending. Local Agency comments and input at the workshop will provide general policy direction to guide future discussions. Decisions on these complex policy issues will be made later in the I/I Control Program. Also featured was an update on various I/I Control Program elements currently underway.

Specific topics presented at this Workshop included:

- Program Status and Schedule
- Local Agency Contract Overview
- I/I Control Program Financial Concepts
- Alternatives for Sharing I/I Control Program Costs *(presentation and table discussion)*

Welcome and Introductions

- Louise Miller, Chair of the Regional Water Quality Committee (RWQC), welcomed attendees, provided a review of the first three workshops, and thanked those who wrote letters of support for supplemental federal funding for additional pilot projects.

- Don Theiler, King County Wastewater Treatment Division Manager, explained that the elimination of "clear water" (I/I) from local wastewater treatment systems would have to be paid for, one way or another, and that today, workshop participants would discuss cost-sharing options for that elimination.

- Dave Christensen, Chair of the Metropolitan Water Pollution Abatement Advisory Committee (MWPAAC), welcomed participants to the workship and informed participants that data collected from 807 flow meters currently in place would be used to evaluate I/I by "mini-basin." This evaluation would be used to ascertain where I/I problems are most severe. He explained that Local Agencies would be asked to discuss financial policy issues, look at common themes and differences, and explore mutually acceptable solutions.

Program Update

Gunars Sreibers, Regional I/I Control Program Manager, provided a review of the I/I Control Program status and schedule. He explained that there are three primary areas of the I/I Control Program: technical, financial, and policy. Mr. Sreibers explained to workshop participants that the I/I Control Program is still only in its first year and that Workshop #4 is a first effort at discussing financial and cost-sharing concepts and options. He pointed out that the I/I Control Program is a five-year effort, currently funded at the level of $31 million by King County. In addition, he said, there is a chance to obtain $37 million in federal money in 2002, which would increase the number of pilot projects that could be undertaken from around 10 to 35.

Workshop Overview

Alice Shorett, Earth Tech Team, outlined the objectives and process for the workshop. It was important, she said, to begin the discussion of cost-sharing options early in the Program, in order to avoid potential surprises or controversy in later stages.

She indicated there was to be a question and response opportunity after the Contracts presentation and a table discussion after the Financial Concepts and Cost-Sharing presentations. The table discussions were to address specific questions related to cost-sharing options as well as to ask for an informal preference choice as to three cost-sharing alternatives. The table discussions would be followed by table reports and questions and responses.

Local Agency Contract Overview

Bob Hirsch, Local Agency Affairs Administrator with King County, gave a brief overview of Local Agency contracts. He specifically discussed the number and length of these contracts,

most of which will run through the year 2036. This was followed by a chance for participants to ask questions focused on these contracts.

The only question raised at this time was:

Q: Of 34 Local Agencies, how many are cities/towns and how many are water/sewer districts?

A: It is an even split, with 17 cities and 17 "special districts," though these numbers will change in the near future due to consolidation of a few districts.

I/I Program Financial Concepts

Manny Teodoro, Earth Tech Team, then presented financial concepts to illustrate potential future funding of the I/I Control Program. He explained that sewer flows and rainfall monitoring would be modeled to isolate and identify I/I flows by mini-basin. Through the use of assessment protocols, the King County wastewater service area could be subdivided into smaller, ranked basins that would set targets for I/I removal. Costs could then be identified for I/I removal in each basin.

Using this information, a cost/benefit analysis could be conducted that would compare I/I removal costs and benefits with baseline wastewater costs that do not include I/I removal. It would then be possible to identify savings that could be achieved through an I/I Control Program.

These savings, Mr. Teodoro said, can be charted in an estimated cost/benefit curve. This curve shows that the I/I that is easiest to remove would be relatively inexpensive, but it would not provide substantial benefits. As the benefits grow from additional I/I removal, the cost/benefit curve would reach an "optimal" point where cost savings are maximized and I/I removal is substantial. More aggressive I/I removal would lessen cost savings, but potentially could increase other benefits (e.g. environmental) or be necessary because of federal or state regulatory requirements.

Alternatives for Sharing I/I Control Program Costs

Manny Teodoro then presented cost-sharing alternatives for I/I control. He started by indicating that I/I costs are inevitable, since eventually the I/I into the sewer system will need to be addressed. He then explained the following cost-sharing principles as they relate to I/I control:

Collective: "All for one, and one for all" (current approach) – I/I is fundamentally a regional issue and the costs should be shared equally by all who are part of the King County regional wastewater system.

Cost Driven: "Those who cost the most should pay the most" – Since costs related to I/I differ from Local Agency to Local Agency, I/I costs should be allocated according to the Local Agency's I/I contribution or by the cost to remove its I/I.

Benefit Driven: "Those who benefit the most should pay the most" – Since benefits of I/I removal vary by Local Agency, costs should be allocated by Local Agency according to

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the benefit that a particular Local Agency receives from I/I removal, over and above the regional benefit.

Mr. Teodoro illustrated these cost-sharing principles using a hypothetical "Soggy County" and two cities, "Mudville" and "Floodington." Using these entities, Mr. Teodoro provided sample I/I removal scenarios for the three cost-sharing principles that showed how each principle resulted in different I/I removal costs for each entity.

Mr. Teodoro then discussed three policy elements that could be used to implement chosen cost-sharing principles. Participants were asked to discuss these three policy elements, which included:

> *I/I Program Intensity* – Program intensity would determine what level of I/I removal should be pursued and the theoretical costs for that level of removal. This would help determine what I/I removal cost would need to be allocated to the Local Agencies.
> *Geographic Division* – This component would determine whether the rates established by the costs would be uniform for the entire service area or whether the rates would vary by geographic division (e.g. by treatment plant service area, by interceptor service area, by each Local Agency, or by some other division).
> *Rate Structure* – This policy component would ascertain how the costs would be allocated to the Local Agencies using one fixed rate, as exists today, or using variable rates based on flow contribution.

Table Discussions, Reporting Out, and Questions and Responses

Attendees then engaged in table discussions on alternatives for sharing I/I control costs. Ms. Shorett moderated the reporting out from the table discussions and a brief session of questions and responses. This process, she reminded participants, was intended to generate ideas and concerns, not to make actual decisions.

Reporting From Table Discussions

The facilitators from each of the tables then described the discussion they had moderated, reporting on each of the three policy areas: I/I Program Intensity, Geographic Division, and Basic Rate Structure. What follows is a brief summary of that input and areas of tentative general concurrence relative to each policy area.

I/I Program Intensity

This was the policy area where there was the most agreement. The majority of the tables reported agreement that I/I Program Intensity ought to fall at the "optimal" point of maximal cost savings. Most indicated, however, that environmental and regulatory requirements, such as Endangered Species Act compliance, might provide reason to increase the level of I/I removal from the optimal point toward the break-even point.

Geographic Division

There was a wide range of preferences among the tables on what level of geographic division should be incorporated into the I/I Control Program. If there was a tendency toward

concurrence, it identified "fewer areas" of cost sharing as preferable to costs being allocated individually to all 34 Local Agencies. While several tables favored some level of splitting costs by geographic divisions, not many wanted costs divided by more than the six "Interceptor Zones." The reasons cited for not supporting a geographic division by Local Agency included administrative feasibility and the fact that costs for other King County wastewater services (e.g. Combined Sewer Overflows) are not broken down by individual Local Agency. There was concern that allocating I/I removal costs by each Local Agency could set a problematic precedent. The Local Agencies also expressed the concern that a geographic division by Local Agency would be too complex because of flow monitoring needs and concerns with flow measuring accuracy.

Rate Structure

Different tables expressed a broad range of preferences for this policy area also, though some convergence emerged. Those who favored the existing fixed rate approach cited simplicity and ease of administration. However, there was support for variations in rates based on credits allocated to those Local Agencies that do a good job of controlling I/I, and for incentives offered to Local Agencies to encourage I/I removal.

Panel Responses to Questions and Reporting Out

Q (from Renton/Soos Creek table, South 1): Does the 1,100 gallons/acre/day (gpapd) level indicate I/I on top of dry flow or a total threshold?
A: The 1,100 gpapd is actually the I/I allowance over and above the dry weather flow, not the total flow allowance. (This summary response is a clarification from the discussion at the Workshop, which indicated that the 1,100 gpapd was a total threshold.)

Q (from Mercer Island table, East 2): Who will be doing the actual work of determining pilot projects, contracting out I/I removal services, etc.?
A: This will largely be determined at Workshop #6 in April 2001.

Q (from Walter Canter, RWQC): Can I/I Program consultants look at cost-sharing arrangements from other cities/jurisdictions that have done this before, in order to learn what we can from their experiences?
A: That is a good suggestion, and we will certainly research those efforts.

Wrap-up and Next Action Steps

Ms. Shorett summarized the work that had been done at Workshop #4 as follows:

1. Local Agency Contract Overview
2. I/I Control Program Financial Concepts
3. Alternatives for Sharing I/I Control Costs
4. Table Discussions on Cost-Sharing Alternatives
5. Questions and Responses

Ms. Shorett outlined the areas of general concurrence on the policy issues described above. She reaffirmed that the day's presentations and discussions were first efforts on these difficult

policy issues and that no decisions would be made based on the day's workshop. The discussions would instead guide future policy work. Subsequent workshops and discussions would refine these policy issues for formulation of final I/I Control Program recommendations.

Marcos Lopez, Earth Tech Team, then indicated that the Policy Team consultants and the Local Area Managers would continue to work with their Local Agencies on policy and technical issues. He reminded participants that there would be four workshops over the course of the next year to make progress on various technical, financial, and policy issues. Mr. Lopez also stated that the Earth Tech Team was available to meet with any Local Agency to present the information discussed today. Mr. Lopez encouraged Local Agency policy representatives to remain engaged in discussion and development of policy issues over the next year.

He said the next half-day workshop (Workshop #5) would discuss I/I modeling and take place at the end of February 2001. For logistical purposes, there will be one session of this Workshop in the North and an identical one in the South on consecutive days. Local Agency technical representatives were urged to attend Workshop #5.

He said that Workshop #6, tentatively scheduled for April 2001, would focus on the data from the 807 flow monitors currently in place and Local Agency selection of ten pilot basins/projects. Local Agency technical and policy representatives were encouraged to attend this workshop to focus on this critical component of the I/I Control Program.

Finally, Mr. Lopez mentioned that workshops in October and December of 2001 would focus on contracting methods and design standards, with a specific emphasis on private property standards.